SAFETY DATA SHEET
According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)

Sikafloor-381 ECF A

Revision Date 29.06.2022 Version 2.0 Print Date 29.06.2022

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : Sikafloor-381 ECF A

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use : Epoxy coating

1.3 Details of the supplier of the safety data sheet

Company name of supplier : Sika South Africa (Pty) Ltd
9 Hocking Place
Westmead
3608 Pinetown
South Africa

Telephone : +27 (0)31 792 6500
Telefax : +27 (0)31 700 1760
E-mail address of person responsible for the SDS : headoffice@za.sika.com

1.4 Emergency telephone number

+27 76 920 1930

SECTION 2: Hazards identification

Type of product : Mixture

2.1 Classification of the substance or mixture

Classification (SANS 10234)

Skin corrosion, Sub-category 1C	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Germ cell mutagenicity, Category 2	H341: Suspected of causing genetic defects.
Reproductive toxicity, Category 1B	H360F: May damage fertility.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (SANS 10234)

Hazard pictograms :

Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.

		H317	May cause an allergic skin reaction.
		H341	Suspected of causing genetic defects.
		H360F	May damage fertility.
		H411	Toxic to aquatic life with long lasting effects.
Precautionary statements	:	**Prevention:**	
		P201	Obtain special instructions before use.
		P273	Avoid release to the environment.
		P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
		Response:	
		P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
		P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
		P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
		P308 + P313	IF exposed or concerned: Get medical advice/ attention.
		P391	Collect spillage.

Hazardous components which must be listed on the label:

bis-[4-(2,3-epoxypropoxy)phenyl]methane
Trimethylolpropane triglycidylether
bis-[4-(2,3-epoxipropoxi)phenyl]propane
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether

Additional Labelling:

EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (SANS 10234)	Concentration (% w/w)

bis-[4-(2,3-epoxypropoxy)phenyl]methane	9003-36-5 01-2119454392-40-XXXX	Skin Irrit.2; H315 Skin Sens.1; H317 Aquatic Chronic2; H411	>= 10 - < 20
Trimethylolpropane triglycidylether	Not Assigned 01-2120078341-60-XXXX	Skin Corr.1C; H314 Eye Dam.1; H318 Skin Sens.1B; H317 Muta.2; H341 Repr.1B; H360F Aquatic Chronic2; H411	>= 5 - < 10
bis-[4-(2,3-epoxipropoxi)phenyl]propane	1675-54-3 216-823-5 01-2119456619-26-XXXX	Skin Irrit.2; H315 Eye Irrit.2; H319 Skin Sens.1; H317 Aquatic Chronic2; H411	>= 2,5 - < 5
Titanium dioxide (> 10 µm)	13463-67-7 236-675-5 01-2119489379-17-XXXX		>= 2,5 - < 5
benzyl alcohol	100-51-6 202-859-9 01-2119492630-38-XXXX	Acute Tox.4; H302 Acute Tox.4; H332 Eye Irrit.2; H319	>= 2,5 - < 5
xylene Contains: ethylbenzene <= 25 %	1330-20-7 215-535-7 01-2119488216-32-XXXX	Flam. Liq.3; H226 Acute Tox.4; H332 Acute Tox.4; H312 Skin Irrit.2; H315 Eye Irrit.2; H319 STOT SE3; H335 STOT RE2; H373 Asp. Tox.1; H304 Aquatic Chronic3; H412	>= 1 - < 2,5
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether	3101-60-8 221-453-2 01-2119959496-20-XXXX	Skin Sens.1; H317 Aquatic Chronic2; H411	>= 0,25 - < 1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	:	Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	:	Move to fresh air. Consult a physician after significant exposure.
In case of skin contact	:	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
In case of eye contact	:	Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Keep eye wide open while rinsing.
If swallowed	:	Do not induce vomiting without medical advice. Rinse mouth with water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	:	Allergic reactions Dermatitis See Section 11 for more detailed information on health effects and symptoms.
Risks	:	Health injuries may be delayed. corrosive effects sensitising effects toxic effects for reproduction May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing genetic defects. May damage fertility. Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Deny access to unprotected persons.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8).
Do not get in eyes, on skin, or on clothing.
For personal protection see section 8.
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Smoking, eating and drinking should be prohibited in the application area.
Pregnant women or women of child-bearing age should not be exposed to this product.
Follow standard hygiene measures when handling chemical products

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with local regulations.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Titanium dioxide (> 10 µm)	13463-67-7	OEL-RL	10 mg/m3	ZA OEL
	Further information: Occupational Exposure Limits - Restricted Limits For Hazardous Chemical Agents, denotes carcinogenicity, which is based on GHS categorisation, including category 1A, 1B			
xylene	1330-20-7	TWA	50 ppm	2000/39/EC

			221 mg/m3	
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm 442 mg/m3	2000/39/EC
		OEL- RL STEL/C	300 ppm	ZA OEL
	Further information: danger of cutaneous absorption, Occupational Exposure Limits - Restricted Limits For Hazardous Chemical Agents			
		OEL-RL	200 ppm	ZA OEL

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
xylene	1330-20-7	Methylhippuric acids: 1.5 g/g creatinine (Urine)	End of shift	ZA BEI

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166
Eye wash bottle with pure water
Wear eye/face protection.

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manufacturer specifications.

Suitable for short time use or protection against splashes:
Butyl rubber/nitrile rubber gloves (> 0,1 mm)
Contaminated gloves should be removed.
Suitable for permanent exposure:
Viton gloves (0.4 mm),
breakthrough time >30 min.

Skin and body protection : Protective clothing (e.g. Safety shoes acc. to EN ISO 20345, long-sleeved working clothing, long trousers). Rubber aprons and protective boots are additionaly recommended for mixing and stirring work.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
organic vapor filter (Type A)
A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm
Ensure adequate ventilation. This can be achieved by local exhaust extraction or by general ventilation. (EN 689 - Methods for determining inhalation exposure). This applies in particular to the mixing / stirring area. In case this is not sufficent

to keep the concentrations under the occupational exposure limits then respiration protection measures must be used.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	various
Odour	:	epoxy-like
Melting point/range / Freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flammability (solid, gas)	:	No data available

Upper/lower flammability or explosive limits

Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	> 101 °C Method: closed cup
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available
pH	:	ca. 7 Concentration: 100 %

Viscosity

Viscosity, kinematic	:	> 20,5 mm2/s (40 °C)

Solubility(ies)

Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	0,01 hPa
		0,01 hPa
Density	:	ca. 1,69 g/cm3 (20 °C)

Relative vapour density : No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Components:

Trimethylolpropane triglycidylether:

Acute oral toxicity : LD50 Oral (Rat): 3.398 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg

bis-[4-(2,3-epoxipropoxi)phenyl]propane:

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5.000 mg/kg

benzyl alcohol:

Acute oral toxicity : LD50 Oral (Rat): 1.620 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 4,178 mg/l

Exposure time: 4 h
Test atmosphere: dust/mist

xylene:
Acute oral toxicity : LD50 Oral (Rat): 3.523 mg/kg

p-tert-butylphenyl 1-(2,3-epoxy)propyl ether:
Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 3.466 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 Dermal (Rabbit): 6.000 mg/kg

Skin corrosion/irritation
Causes severe burns.

Serious eye damage/eye irritation
Causes serious eye damage.

Respiratory or skin sensitisation
Skin sensitisation: May cause an allergic skin reaction.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity
Suspected of causing genetic defects.

Carcinogenicity
Not classified based on available information.

Reproductive toxicity
May damage fertility.

STOT - single exposure
Not classified based on available information.

STOT - repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Trimethylolpropane triglycidylether:
Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (microalgae)): 9 mg/l
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	EC50: 3,7 mg/l Exposure time: 48 d Species: Daphnia magna (Water flea)

bis-[4-(2,3-epoxipropoxi)phenyl]propane:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 1,8 mg/l Exposure time: 48 h

benzyl alcohol:

Toxicity to fish	:	LC50 (Fish): > 100 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h

xylene:

Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 2,2 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to fish (Chronic toxicity)	:	NOEC: > 1,3 mg/l Exposure time: 56 d Species: Oncorhynchus mykiss (rainbow trout)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 1,17 mg/l Exposure time: 7 d Species: Daphnia (water flea)

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:

Endocrine disrupting potential	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
European Waste Catalogue	:	08 01 11* waste paint and varnish containing organic solvents or other dangerous substances
Contaminated packaging	:	15 01 10* packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

14.1 UN number

ADR	:	UN 1760
IMDG	:	UN 1760
IATA	:	UN 1760

14.2 UN proper shipping name

ADR	:	CORROSIVE LIQUID, N.O.S. (Trimethylolpropane triglycidylether, epoxy resin)

IMDG	:	CORROSIVE LIQUID, N.O.S. (Trimethylolpropane triglycidylether, epoxy resin)
IATA	:	Corrosive liquid, n.o.s. (Trimethylolpropane triglycidylether, epoxy resin)

14.3 Transport hazard class(es)

ADR	:	8
IMDG	:	8
IATA	:	8

14.4 Packing group

ADR

Packing group	:	III
Classification Code	:	C9
Hazard Identification Number	:	80
Labels	:	8
Tunnel restriction code	:	(E)

IMDG

Packing group	:	III
Labels	:	8
EmS Code	:	F-A, S-B
Remarks	:	Alkalis

IATA (Cargo)

Packing instruction (cargo aircraft)	:	856
Packing instruction (LQ)	:	Y841
Packing group	:	III
Labels	:	Corrosive

IATA (Passenger)

Packing instruction (passenger aircraft)	:	852
Packing instruction (LQ)	:	Y841
Packing group	:	III
Labels	:	Corrosive

14.5 Environmental hazards

ADR

Environmentally hazardous	:	yes

IMDG

Marine pollutant	:	yes

IATA (Passenger)

Environmentally hazardous	:	yes

IATA (Cargo)

Environmentally hazardous	:	yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 3
International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	None of the components are listed (=> 0.1 %).
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable

REACH Information: All substances contained in our Products are
- registered by our upstream suppliers, and/or
- registered by us, and/or
- excluded from the regulation, and/or
- exempted from the registration.

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E2 ENVIRONMENTAL HAZARDS

Volatile organic compounds	:	Law on the incentive tax for volatile organic compounds (VOCV) Volatile organic compounds (VOC) content: 6,14% w/w Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Volatile organic compounds (VOC) content: 6,15% w/w

Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Full text of H-Statements

H226	:	Flammable liquid and vapour.
H302	:	Harmful if swallowed.
H304	:	May be fatal if swallowed and enters airways.
H312	:	Harmful in contact with skin.
H314	:	Causes severe skin burns and eye damage.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H332	:	Harmful if inhaled.
H335	:	May cause respiratory irritation.
H341	:	Suspected of causing genetic defects.
H360F	:	May damage fertility.
H373	:	May cause damage to organs through prolonged or repeated exposure if inhaled.
H411	:	Toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Asp. Tox.	:	Aspiration hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Muta.	:	Germ cell mutagenicity
Repr.	:	Reproductive toxicity
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure
ADR	:	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	:	Chemical Abstracts Service
DNEL	:	Derived no-effect level
EC50	:	Half maximal effective concentration
GHS	:	Globally Harmonized System
IATA	:	International Air Transport Association

IMDG	:	International Maritime Code for Dangerous Goods
LD50	:	Median lethal dosis (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)
LC50	:	Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period)
MARPOL	:	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978
OEL	:	Occupational Exposure Limit
PBT	:	Persistent, bioaccumulative and toxic
PNEC	:	Predicted no effect concentration
REACH	:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency
SVHC	:	Substances of Very High Concern
vPvB	:	Very persistent and very bioaccumulative

Classification of the mixture:		**Classification procedure:**
Skin Corr. 1C	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Muta. 2	H341	Calculation method
Repr. 1B	H360F	Calculation method
Aquatic Chronic 2	H411	Calculation method

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

ZA / EN